

Chemistry 161 Lab: Chemistry for the Health Sciences

Spring 2011

Lab Sessions: Thurs (5:30- 8:30)

Lab Room: (Holdroy 301)



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Office Hours: 5:00–5:30 T & Th

- ❖ The labs are designed to complement the lecture course and constitutes 25% of your final grade.
- ❖ Lab Reports are **due at the beginning** of the class and MUST follow the attached format. You will be penalized for lateness (2 points per day). Labs **MAY not** be emailed to me.
- ❖ You are expected to read over the directions prior to your class meeting for the lab.
- ❖ Any special instructions pertaining to the lab and safety hazards &/or questions will be covered immediately before lab.

LABORATORY RULES

1. NO EATING OR DRINKING IN LAB!!
2. NO CELLPHONE USAGE IN LAB (unless you are using it to take a picture of the experiment)
3. NO HORSEPLAY IN LAB!!
4. Goggles and lab apron must be worn!! **No sandals or flip flops.**
5. Once the lab has begun, you should not leave for any reason without notifying the instructor.
6. Report any broken material in your drawer at the beginning of class
7. Once you have completed the lab: return materials to the proper place, **clean your work area**, & lock your lab drawer. Finally, tell the instructor you are leaving.
8. No solids in the sink; flammables in the red container.

Failure to comply will result in your being removed from the lab and receiving a grade of "o" for the lab.

SYLLABUS

| EXP # | | |
|-------|-------------|---|
| | 1/20 | LECTURE |
| 1 | 1/27 | Orientation & PHYSICAL MEASUREMENTS PROPERTIES |
| 2 | 2/3 | PAPER CHROMATOGRAPHY |
| 3 | 2/10 | LECTURE |
| 4 | 2/17 | ELECTRONIC STRUCTURE |
| 5 | 2/24 | MODELS OF MOLECULAR COMPOUNDS |
| 6 | 3/2 | WATER & AQUEOUS SOLUTIONS |
| | 3/10 | SPRING BREAK |
| 7 | 3/17 | REACTION & STOICHIOMETRY |
| 8 | 3/24 | HEAT OF COMBUSTION |
| 9 | 3/31 | MOLAR MASS DETERMINATION OF GASES & SOLUTIONS |
| 10 | 4/7 | ACIDS, BASES AND SALTS |
| 11 | 4/14 | POLYMERS |
| 12 | 4/21 | BIOCHEMISTRY LAB |
| | 4/28 | Final Reports Due & Check-out |



LAB REPORT FORMAT



Lab reports should be **typed, stapled** and submitted at the beginning of the laboratory class.
You will be penalized for lateness (5 points per week).

The format you will follow is:

Each page should have the following heading (at the top of the page):

Chemistry 161 Chemistry for the Health Sciences

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Date lab was performed (ex. 09-7-10)

Instructor: L. LaBelle

Your Name (Group Members Names)

Experiment # and Name

- A. Introduction (10%)** – Explain the goals of the experiment; describe the chemistry that is being studied – a good source for this is your class notes or the intro section of the lab procedure.
- B. Experimental (10%)** – Reference the lab manual (“**As seen in CHL161 Lab Manual, LaSalle University, Spring 2011**”). Comment on **changes** in the procedure; **do not rewrite** the procedure from the lab manual. A **rendering** of any apparatus should be included here as well.
- C. Data/Observations (30%)** – include **original data sheet** from lab manual – with detailed qualitative and quantitative observations. **Rendering of results** (if possible) should be included here.
- D. Calculations (5%)** – all formulas and a sample of each calculation must be shown. All calculations should have the correct significant figures and units.
- E. Conclusion (40%)** – This section should also include all post lab questions (question and answer), percent error (if possible) and sources of error.
- Why do you think the lab did not work out as expected?
 - What problems did you encounter?
 - What shortcomings are there in the lab?
- E. Formatting: (5%)** – Although not a section of the lab report, points will be awarded for correctly formatting your lab (as described above).

The last 5% of the lab grade will be for Lab Performance & General Preparedness - I will evaluate if you actually participated in the lab or watching your partner do the entire lab & there may be a short quiz at the beginning of each lab, so be sure to read the lab before you arrive.

LABORATORY SAFETY

Laboratory goggles must be worn at ALL times. If you are seen (by any LaSalle instructor) not wearing goggles during an experiment, you will be expelled from lab and will receive a grade of zero (0) for the experiment.

Food & Drinks are never to be brought into the lab!